Lighting food. Brightening faces.

Affinium™ LED modules LFM 200
for refrigerated display cases

Affinium LED modules represent the latest in solid state lighting for refrigerated displays. Designed to replace traditional fluorescent lamps inside vertical glass-door refrigerated cases, our LFM200 modules feature specialized optics that provide bright, consistent illumination without the glare or hotspots associated with older fluorescent technology. With a slim, streamlined design, the Affinium LED lighting system provides the perfect solution for retrofit or new installations in the refrigerated aisle.

Affinium LED LFM 200 modules offer the following key benefits:

• An excellent total cost of ownership with attractive payback times.

• A dramatic improvement in visibility of both the merchandise on display as well as the entire display case.

• Significant reduction in energy consumption and waste, as well as the elimination of hazardous substances such as mercury and lead.

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sense and simplicity

Affinium LED lighting

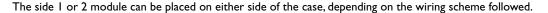The Affinium LED lighting system for refrigerated display cases includes:

LFM 200 modules, 24VDC Xitanium™ LED power drivers, and mounting extrusions.

About Affinium LED modules LFM 200

The LFM 200 module is suitable for full-height glass door refrigerated display cases and is available in 59" and 67" lengths.

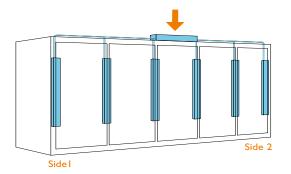Both lengths are available in three versions:
- Center module
- Side 1 module
- Side 2 module

The side 1 or 2 module can be placed on either side of the case, depending on the wiring scheme followed.
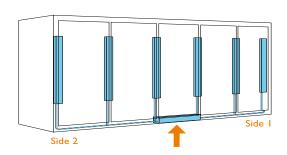
Connections at the top of the freezer

If the electrical wires are fed through the top of the case, install the side 1 module on the left side and the side 2 module on the right side of the case.
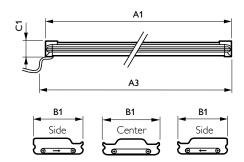
Connections at the bottom of the freezer

If the electrical wires are fed through the bottom of the case, install the side 2 module on the left side and the side 1 module on the right side of the case.

Affinium LED modules	Dimensions (in)		
	A1	A3	B1
LFM 200 59" center module	59.06	59.45	2.20
LFM 200 59" side 1 module	59.06	59.45	1.93
LFM 200 59" side 2 module	59.06	59.45	1.93
LFM 200 67" center module	66.93	67.32	2.20
LFM 200 67" side 1 module	66.93	67.32	1.93
LFM 200 67" side 2 module	66.93	67.32	1.93

Color temperature

Cool White (CW) Affinium LED modules have a correlated color temperature (CCT) of 5600 ± 300K.
Neutral White (NW) Affinium LED modules have a correlated color temperature (CCT) of 4200 ± 300K.
The optical design of Affinium LED modules ensures that the adjacent LEDs in one module are optimally mixed in order to minimize color differences.

Lighting levels and energy savings

Our products deliver best-in-class light uniformity and are available in two different lighting levels:
- Standard system: Delivers in-store levels of up to 1000 lux at the center of a shelf with a 5 inch shelf distance.
- High-level system: Delivers in-store levels of up to 1300 lux at the center of a shelf with a 5 inch shelf distance.

The standard lighting level offers energy savings up to 75% with improved illumination compared to fluorescent lighting systems. The high lighting level offers maximum aesthetics for the presentation of merchandise, while reducing the energy consumption by up to 55%. Both levels offer superior uniformity, enabling a much better visual impression of the merchandise on display and the entire cooler and freezer sections.

Affinium LED modules, 59" length

Type	Power nominal W	Color temperature K	Color rendering index CRI
Standard lighting level 1000 lux			
LFM 200 59" center CW	25	5300-5900	· 72
LFM 200 59" side 1 CW	15	5300-5900	· 72
LFM 200 59" side 2 CW	15	5300-5900	· 72
LFM 200 59" center NW	25	3900-4500	≥72
LFM 200 59" side 1 NW	15	3900-4500	≥72
LFM 200 59" side 2 NW	15	3900-4500	≥72
High lighting level 1300 lux			
LFM 200 59" center NW	35	3900-4500	≥72
LFM 200 59" side 1 NW	22	3900-4500	≥72
LFM 200 59" side 2 NW	22	3900-4500	≥72

Affinium LED modules, 67" length

Type	Power nominal W	Color temperature K	Color rendering index CRI
Standard lighting level 1000 lux			
LFM 200 67" center CW	31	5300-5900	≥72
LFM 200 67" side 1 CW	20	5300-5900	· 72
LFM 200 67"side 2 CW	20	5300-5900	≥72
LFM 200 67" center NW	31	3900-4500	· 72
LFM 200 67" side 1 NW	20	3900-4500	· 72
LFM 200 67"side 2 NW	20	3900-4500	· 72
High lighting level 1300 lux			
LFM 200 67" center NW	44	3900-4500	≥72
LFM 200 67" side 1 NW	28	3900-4500	≥72
LFM 200 67" side 2 NW	28	3900-4500	· 72

* Notes on lighting levels and energy savings:

Lighting levels are measured by a CCD camera at the center of the shelf at the center-most door of the case with a 5 inch distance between the back of the module and the front of the merchandise. These measurements were taken at in-store lighting level conditions. Values for nominal power and lighting levels can deviate by 20%, measured at -4°F (-20°C). Due to insufficient data points the values are best estimations.

Lifetime
The lifetime of Affinium LED modules is rated at 50,000 hours (70% lumen maintenance).

Temperature

Operating temperature (performances):	$T_{operating}$	min -13°F / max +50°F
Safety temperature (operating, no defects)	T_{safety}	min -22°F / max +86°F
Storage temperature	$T_{storage}$	min -22°F / max +140°F

Enhanced safety
In the event of unit damage, when used with a Safety Extra Low Voltage (SELV), energy-limited, class-2 Xitanium™ driver, the Affinium LED system provides a safer operating environment than that of a fluorescent system.

Compliances and approvals
Affinium LED modules comply with all applicable regulations including:
- ENEC
- CE
- Product safety, class III
- RoHS compliant
- WEEE
- EU directive 2002/95/EC
- UL
- NSF

Ordering details

Affinium LED modules, 59" length

Type	Quantity per pack	Ordering code
Standard lighting level 1000 lux		
LFM 200 1500mm (59") center 25W CW	1	9290 001 37113
LFM 200 1500mm (59") side 1 15W CW	1	9290 001 37213
LFM 200 1500mm (59") side 2 15W CW	1	9290 001 37313
LFM 200 1500mm (59") center 25W NW	1	9290 001 37413
LFM 200 1500mm (59") side 1 15W NW	1	9290 001 37513
LFM 200 1500mm (59") side 2 15W NW	1	9290 001 37613
High lighting level 1300 lux		
LFM 200 1500mm (59") center 35W NW	1	9290 004 55813
LFM 200 1500mm (59") side 1 22W NW	1	9290 004 55913
LFM 200 1500mm (59") side 2 22W NW	1	9290 004 56013

Affinium LED modules, 67" length

Type	Quantity per pack	Ordering code
Standard lighting level 1000 lux		
LFM 200 1700mm (67") center 31W CW	1	9290 001 38313
LFM 200 1700mm (67") side 1 20W CW	1	9290 001 38413
LFM 200 1700mm (67") side 2 20W CW	1	9290 001 38513
LFM 200 1700mm (67") center 31W NW	1	9290 001 38613
LFM 200 1700mm (67") side 1 20W NW	1	9290 001 38713
LFM 200 1700mm (67") side 2 20W NW	1	9290 001 38813
High lighting level 1300 lux		
LFM 200 1700mm (67") center 44W NW	1	9290 004 56413
LFM 200 1700mm (67") side 1 28W NW	1	9290 004 56513
LFM 200 1700mm (67") side 2 28W NW	1	9290 004 56613

Retrofit Mounting Extrusions

Type	Part Number
LFM200 60" Center Mounting Extrusion	LFM200EXT60INCRM
LFM200 72" Center Mounting Extrusion	LFM200EXT72INCRM
LFM200 60" Side Mounting Extrusion (both sides)	LFM200EXT60INSDM
LFM200 72" Side Mounting Extrusion (both sides)	LFM200EXT72INSDM

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